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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Kiyoaki Takiguchi

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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
LLP

901 NEW YORK AVENUE, NW  
WASHINGTON, DC 20001-4413

EXAMINER

EVOY, NICHOLAS LANE

ART UNIT

PAPER NUMBER

3768

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/569,953	<b>Applicant(s)</b> TAKIGUCHI, KIYOAKI	
	<b>Examiner</b> NICHOLAS EVOY	<b>Art Unit</b> 3768	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/6/11 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-15 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Regarding claim 1, the claim recites "quasi electrostatic field generating means for generating a quasi-electrostatic field of higher field strength as compared with *a radiated electric field* and *an induced electromagnetic field*" however it is unclear whether the electric field and the electromagnetic field are intended to be generated by the claimed apparatus, as such it is unclear if the electric field and the electromagnetic field are intended to be recited in the claim. Specifically, the omission of generating

Art Unit: 3768

means for the electric field and the electromagnetic field amounts to a gap between the elements (see MPEP 2172.01).

5. Regarding claim 1, the claim recites “quasi-electrostatic field detecting means for detecting a result of interaction between said quasi-electrostatic field and an electric field corresponding to a potential change cause by a dynamic reaction inside said object” however it is unclear if the “electric field corresponding to a potential change” is equivalent to the radiated electric field or the induced electromagnetic field. Additionally, it is unclear if the “dynamic reaction inside said object” is related to the measuring apparatus.

6. Regarding claim 1, the claim recites both “quasi-electrostatic field detecting means” as well as “extracting means”, however according to the claims the functions of “detecting a result of interaction” and “extracting said potential change from said result of interaction” seem to be equivalent. It is unclear if the “quasi-electrostatic field detecting means” and the “extracting means” are two separate components in the measuring apparatus.

7. Regarding claims 1, 7 and 14, the claim recites “...a first pair of electrodes for detecting electric field strength and *both formed on a same insulating sheet*” however a “same insulating sheet” is not understood by the examiner. For the purposes of examination the claim is interpreted to mean “wherein said quasi-electrostatic field detecting means comprises an insulating sheet on which a first pair of electrodes for detecting electric field strength are formed”.

Art Unit: 3768

8. Regarding claim 4, the claim recites “in a time division manner” however this phrase is not understood. For the purposes of examination the claim is interpreted to mean “over time”.

9. Regarding claim 5, the claim recites “outputting a combined result of each of said voltages after said adjustment” however it is unclear if the “output adjusting means” referenced in claim 5 performs the outputting, or if the outputting function is performed by the generating means.

10. Regarding claims 8 and 15, the claim recites “generating a quasi-electrostatic field of higher field strength as compared with a radiated electric field and an induced electromagnetic field...” however it is unclear whether the electric field and the electromagnetic field are intended to be generated in the measuring method, as such it is unclear if the electric field and the electromagnetic field are intended to be recited in the claim. Specifically, the omission of the steps of generating the electric field and the electromagnetic field amounts to a gap between the steps (see MPEP 2172.01).

11. Regarding claim 8, the claims recite the separate steps of “detecting...” and “extracting...” however in light of the function of these steps it is unclear if the same step is being repeated. Specifically, it is unclear how the “extracting...” step is distinct from the “detecting...” step.

12. Regarding claim 11, the claim recites “in a time division manner” however this phrase is not understood. For the purposes of examination the claim is interpreted to mean “over time”.

Art Unit: 3768

13. Regarding claim 14, the claim recites "quasi-electrostatic field detecting means for detecting potential changes caused by biological reactions inside a living body" however it is unclear how "potential changes caused by biological reactions inside a living body" relate to "quasi-electrostatic field detecting means", or rather how the "quasi-electrostatic field detecting means" are capable of detecting "potential changes caused by biological reactions inside a living body". Additionally, it is noted that the term "potential changes" is given the broadest reasonable interpretation, and if the term is intended to reference "electric potential changes" the claim should be amended as such.

14. Regarding claim 14, the claim recites the components of "quasi-electrostatic field detecting means" and "extracting means" however, as referenced above, the distinction between the two components is unclear.

15. Regarding claim 15, the claim recites the steps of "detecting" and "extracting" however the distinction between the two steps is unclear (see above).

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-15 rejected under 35 U.S.C. 102(b) as being anticipated by Gershenfeld et al, US Patent Number 5,914,701.

Art Unit: 3768

3. In re claim 1, Gersheneld discloses a measuring apparatus comprising: quasi-electrostatic field generating means generating a quasi-electrostatic field of higher field strength as compared with a radiated electric field and an induced electromagnetic field; quasi-electrostatic field detecting means detecting a result of interaction between said quasi-electrostatic field generated by said quasi-electrostatic field generating means and applied to an object to be measured, and an electric field corresponding to a potential change caused by a dynamic reaction inside said object to be measured; and extracting means extracting said potential change from said result of interaction detected by said quasi-electrostatic field detecting means (i.e. the quasi-electrostatic field being stronger than the negligible electromagnetic field, see Column 2, Lines 1-8, Column 2, Lines 25-36, Column 3, Lines 38-46, Column 3, Lines 57-67, Column 4, Lines 1-10 and Column 6, Lines 38-49); wherein said quasi-electrostatic field detecting means comprises a first pair of electrodes for detecting electric field strength and both formed on a same insulating sheet (i.e. the surfaces containing receivers including "the array of receivers", Column 8, Lines 9-18 as well as Column 8, Lines 24-41 and Figure 9 as well as Figure 10).

4. In re claim 2, Gersheneld discloses the measuring apparatus according to claim 1, wherein: said object to be measured is a living body; and said quasi-electrostatic field detecting means detects said result of interaction with said electric field corresponding to said potential change caused by a biological reaction inside said living body (Abstract).

Art Unit: 3768

5. In re claim 3, Gersheneld discloses the measuring apparatus according to claim 1, wherein said quasi-electrostatic field generating means generates said quasi-electrostatic fields of said higher field strength as compared with said induced electromagnetic field, at each of said distances respectively corresponding to said plurality of frequencies (Column 2, Lines 54-59).

6. In re claim 4, Gersheneld discloses the measuring apparatus according to claim 1, wherein said quasi-electrostatic field generating means generates said quasi-electrostatic fields of said higher field strength as compared with said induced electromagnetic field, in time division manner for each of said distances at each of said distances respectively corresponding to said plurality of frequencies (i.e. the electromagnetic field is inherently smaller, Column 2, Lines 54-59).

7. In re claim 5, Gersheneld discloses the measuring apparatus according to claim 3, wherein said quasi-electrostatic field generating means comprises output adjusting means adjusting outputs of each voltage corresponding to each of said frequencies to a predetermined electrode, to make the strength of each of said quasi-electrostatic fields generated at each of said distances respectively corresponding to each of the frequencies become a predetermined field strength, and outputting a combined result of each of said voltages after the adjustment (Column 2, Lines 9-19).

8. In re claim 6, Gersheneld discloses the measuring apparatus according to claim 4, wherein said quasi-electrostatic field generating means comprises output adjusting means adjusting outputs of each voltage corresponding to each of said frequencies to a predetermined electrode, to make the strength of each of said quasi-electrostatic fields



Art Unit: 3768

generated at each of said distances respectively corresponding to each of the frequencies become a predetermined field strength (Column 2, Lines 20-39 and Column 5, Lines 4-11).

9. In re claim 7, Gersheneld discloses the measuring apparatus according to claim 1, wherein: said quasi-electrostatic field generating means comprises a pair of electrodes for generation generating said quasi-electrostatic fields; said quasi-electrostatic field detecting means comprises a pair of electrodes for detection detecting said result of interaction; and said pair of electrodes for generation and said pair of electrodes for detection are formed into a unit electrode and a plurality of said unit electrodes are formed on the same surface (Column 4, Lines 55-64).

10. In re claim 8, Gersheneld discloses a measuring method comprising: a quasi-electrostatic field generating step of generating a quasi-electrostatic field of higher field strength as compared with a radiated electric field and an induced electromagnetic field; a quasi-electrostatic field detecting step of detecting, by a pair of electrodes for detecting electric field strength and both arranged facing said object via a same insulating sheet (i.e. the surfaces containing receivers including "the array of receivers", Column 8, Lines 9-18 as well as Column 8, Lines 24-41 and Figure 9 as well as Figure 10), a result of interaction between said quasi-electrostatic field generated in said quasi-electrostatic field generating step and applied to an object to be measured, and an electric field corresponding to a potential change caused by a dynamic reaction inside said object to be measured; and an extracting step extracting said potential change from said result of interaction detected in said quasi-electrostatic field detecting step

Art Unit: 3768

(i.e. the quasi-electrostatic field being stronger than the negligible electromagnetic field, see Column 2, Lines 1-8, Column 2, Lines 25-36, Column 3, Lines 38-46, Column 3, Lines 57-67, Column 4, Lines 1-10 and Column 6, Lines 38-49).

11. In re claim 9, Gersheneld discloses the measuring method according to claim 8, wherein said object to be measured is a living body, and wherein said result of interaction with said electric field corresponding to said potential change caused by a biological reaction inside said living body is detected in said quasi-electrostatic field detecting step (Abstract).

12. In re claim 10, Gersheneld discloses the measuring method according to claim 8, wherein said quasi-electrostatic fields of said higher field strength as compared with said induced electromagnetic field at each of said distances respectively corresponding to a plurality of said frequencies are generated in said quasi-electrostatic field generating step (Column 2, Lines 54-59).

13. In re claim 11, Gersheneld discloses the measuring method according to claim 8, wherein said quasi-electrostatic fields of said higher field strength as compared with said induced electromagnetic field are generated in time division manner for each of said distances at each of said distances respectively corresponding to a plurality of said frequencies in said quasi-electrostatic field generating step (i.e. the electromagnetic field is inherently smaller, Column 2, Lines 54-59).

14. In re claim 12, Gersheneld discloses the measuring method according to claim 10, wherein said quasi-electrostatic field generating step comprises output adjusting step adjusting outputs of each voltage corresponding to each of said frequencies to a

Art Unit: 3768

predetermined electrode, to make the strength of each of said quasi-electrostatic fields generated at said distances respectively corresponding to each of the frequencies become a predetermined field strength, and outputting a combined result of each of said voltages after the adjustment (Column 2, Lines 9-19).

15. In re claim 13, Gersheneld discloses the measuring method according to claim 11, wherein said quasi-electrostatic field generating step comprises output adjusting step adjusting outputs of each voltage corresponding to each of said frequencies to a predetermined electrode, to make the strength of each of said quasi-electrostatic fields generated at said distances (Column 2, Lines 20-39 and Column 5, Lines 4-11).

16. In re claim 14, Gersheneld discloses a measuring apparatus comprising: quasi-electrostatic field detecting means detecting potential changes caused by biological reactions inside a living body; and extracting means extracting one of said potential changes caused by predetermined one of said biological reactions from said potential changes detected by said quasi-electrostatic field detecting means (i.e. the quasi-electrostatic field being stronger than the negligible electromagnetic field, see Column 2, Lines 1-8, Column 2, Lines 25-36, Column 3, Lines 38-46, Column 3, Lines 57-67, Column 4, Lines 1-10 and Column 6, Lines 38-49), wherein said quasi-electrostatic field detecting means comprises a pair of electrodes for detecting electric field strength and both formed on a same insulating sheet (i.e. the surfaces containing receivers including "the array of receivers", Column 8, Lines 9-18 as well as Column 8, Lines 24-41 and Figure 9 as well as Figure 10).

Art Unit: 3768

16. In re claim 15, *Gersheneld* discloses a measuring method comprising: quasi-electrostatic field detecting step of detecting, by a pair of electrodes for detecting electric field strength and both arranged facing a living body via a same insulating sheet (i.e. the surfaces containing receivers including "the array of receivers", Column 8, Lines 9-18 as well as Column 8, Lines 24-41 and Figure 9 as well as Figure 10), potential changes caused by biological reactions inside a living body; and extracting step extracting one of said potential change caused by predetermined one of said biological reactions from said potential changes detected in said quasi-electrostatic field detecting step (i.e. the quasi-electrostatic field being stronger than the negligible electromagnetic field, see Column 2, Lines 1-8, Column 2, Lines 25-36, Column 3, Lines 38-46, Column 3, Lines 57-67, Column 4, Lines 1-10 and Column 6, Lines 38-49).

### ***Response to Arguments***

Applicant's arguments filed 1/6/11 have been fully considered but they are not persuasive.

17. Regarding applicant's argument that "...Applicant respectfully submits that *Gersheneld* explicitly teaches that "a displacement current passes from the user 10 to the inner electrode 24...the flows through the detector 28 to the ground" and "[t]e detector 28 detects the current."...In view of this, *Gersheneld* does not teach "a [] pair of electrodes for detecting electric field strength" as recited in claim 1": A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed

Art Unit: 3768

invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. It is noted that applicant's phrasing of "electrodes *for detecting electric field strength*" is intended use-type language and has been treated as such when the claims are interpreted by the examiner. Specifically, the claim has been interpreted such that the electrodes of Gersheneld (see rejection above) would be capable of detecting electric field strength and read on the claim accordingly. If it is applicant's intention to include the limitation, the examiner suggests amending the claim to read "electrodes configured to detect electric field strength" however it must be shown in applicant's specification *how* the electrodes are physically configured to detect electric field strength. Additionally, the rejections under 35 USC 112 (see above) must be addressed in the claims.

### ***Conclusion***

18. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure and currently presented claim language:

- a. US Patent 6,025,726
- b. US Patent 7,109,726
- c. US Patent 7,181,024
- d. US Patent 7,312,788
- e. US Patent 7,330,032
- f. US Patent 7,339,381
- g. US Patent 7,432,718

- h. US Patent 7,443,290
- i. US PG Pub 2003/0021078
- j. US PG Pub 2005/0024325
- k. US PG Pub 2005/0167588
- l. US PG Pub 2006/0077616
- m. US PG Pub 2007/0139049
- n. US PG Pub 2007/0164748
- o. US PG Pub 2008/0306359

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICHOLAS EVOY whose telephone number is (571)270-1388. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571)272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3768

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NICHOLAS L. EVOY/  
Examiner, Art Unit 3768

/LONG V. LE/  
Supervisory Patent Examiner, Art Unit 3768